

## 09-ID-04

**Committee:** Infectious

**Title:** Public Health Reporting and National Notification for Cyclosporiasis

### I. Statement of the Problem

CSTE position statement 07-EC-02 recognized the need to develop an official list of nationally notifiable conditions and a standardized reporting definition for each condition on the official list. The position statement also specified that each definition had to comply with American Health Information Community recommended standards to support “automated case reporting from electronic health records or other clinical care information systems.” In July 2008, CSTE identified sixty-eight conditions warranting inclusion on the official list, each of which now requires a standardized reporting definition.

### II. Background and Justification

#### *Background<sup>1</sup>*

Cyclosporiasis is an intestinal illness caused by the protozoan parasite *Cyclospora cayentanensis*, which was characterized and named as recently as 1993-1994. Many aspects of the biology of the parasite and the epidemiology of the disease are poorly understood. Cyclosporiasis appears to be most common in tropical and subtropical regions of the world; international travelers may be at increased risk for infection. In the United States, outbreaks of cyclosporiasis associated with various types of imported fresh produce have been recognized and investigated almost every year since 1995. Among symptomatic persons, the most common clinical manifestation is watery diarrhea, which can be profuse and protracted. Asymptomatic infection has been documented, particularly in settings where cyclosporiasis is endemic.

#### *Justification*

Cyclosporiasis meets the following criteria for a nationally and **standard** notifiable condition, as specified in CSTE position statement 08-EC-02:

- A majority of state and territorial jurisdictions—or jurisdictions comprising a majority of the US population—have laws or regulations requiring **standard** reporting of cyclosporiasis to public health authorities
- CDC requests **standard** notification of cyclosporiasis to federal authorities
- CDC has condition-specific policies and practices concerning the agency’s response to, and use of, notifications. NNDSS data (in conjunction with data from other sources) will be used almost on a daily basis by epidemiologists in the Parasitic Diseases Branch to help identify spatial/temporal clusters of cyclosporiasis cases. Standard analyses entail frequent comparison of geography and date variables among reported cases to attempt to indentify

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<sup>1</sup> Much of the material in the background is directly quoted from the CDC’s cyclosporiasis Website. See the References for further information on this source.

clusters/outbreaks, while ad-hoc analyses are performed periodically, for example, in response to possible event-associated clusters of cases.

### III. Statement of the desired action(s) to be taken

CSTE requests that CDC adopt this standardized definition for cyclosporiasis to facilitate more timely, complete, and standardized local and national reporting of this condition.

### IV. Goals of Surveillance

To provide information on the temporal, geographic, and demographic occurrence of cyclosporiasis to facilitate its prevention and control.

### V. Methods for Surveillance

Surveillance for cyclosporiasis should use the sources of data and the extent of coverage listed in Table V.

**Table V.** Recommended sources of data and extent of coverage for ascertaining cases of cyclosporiasis.

Source of data for case ascertainment	Coverage	
	Population-wide	Sentinel sites
clinician reporting	X	
laboratory reporting	X	
reporting by other entities (e.g., hospitals, veterinarians, pharmacies)	X	
death certificates		
hospital discharge or outpatient records	X	
extracts from electronic medical records	X	
telephone survey		
school-based survey		
other _____		

### VI. Criteria for Reporting

Reporting refers to the process of healthcare providers or institutions (e.g., clinicians, clinical laboratories, hospitals) submitting basic information to governmental public health agencies about cases of illness that meet certain reporting requirements or criteria. The purpose of this

section is to provide those criteria that should be used to determine whether a specific illness should be reported.

**A. Narrative description of criteria to determine whether a case should be reported to public health authorities**

Report any illness to public health authorities that meets any of the following criteria:

1. A symptomatic person with laboratory evidence of cyclosporiasis, which is defined as the detection of *Cyclospora* organisms or DNA in stool, intestinal fluid/aspirate, or intestinal biopsy specimens.
2. A symptomatic person with epidemiologic linkage to a confirmed case of cyclosporiasis.
3. A person whose healthcare record contains a diagnosis of cyclosporiasis.

*Other recommended reporting procedures*

- All cases of cyclosporiasis should be reported.
- Reporting should be on-going and routine.
- Frequency of reporting should follow the state health department’s routine schedule.

**B. Table of criteria to determine whether a case should be reported to public health authorities**

**Table VI-B.** Table of criteria to determine whether a case should be reported to public health authorities. Requirements for reporting are established under State and Territorial laws and/or regulations and may differ from jurisdiction to jurisdiction. These criteria are suggested as a standard approach to identifying cases of this condition for purposes of reporting, but reporting should follow State and Territorial law/regulation if any conflicts occur between these criteria and those laws/regulations.

Criterion	Reporting		
<i>Clinical Evidence</i>			
Diarrhea	O	O	
Fever	O	O	
Anorexia	O	O	
Abdominal bloating	O	O	
Abdominal cramping	O	O	
Weight loss	O	O	

Nausea	O	O	
Fatigue	O	O	
Vomiting	O	O	
Myalgia or other body aches	O	O	
Healthcare record contains a diagnosis of cyclosporiasis			S
<i>Laboratory Evidence</i>			
<i>Cyclospora</i> organisms or DNA in stool	O		
<i>Cyclospora</i> organisms or DNA in intestinal fluid/aspirate or intestinal biopsy specimens	O		
<i>Epidemiologic Evidence</i>			
Epidemiologic linkage to a confirmed case of cyclosporiasis		O	
Member of a risk group defined by public health authorities during an outbreak		O	

Notes:

S = This criterion alone is Sufficient to identify a case for reporting.

O = At least one of these “O” (Optional) criteria in each category (i.e., clinical evidence and laboratory evidence) in the same column is required to identify a case for reporting. (These optional criteria are alternatives, which means that a single column will have either no O criteria or multiple O criteria; no column should have only one O.)

### C. Disease Specific Data Elements:

Disease-specific data elements to be included in the initial report are listed below.

#### *Epidemiological Risk Factors*

International travel any time during the 2-week period before onset of symptoms

    Countries visited and dates of travel

Attendance at event(s) at which food was served during the 2-week period before onset of symptoms

    Name(s) and date(s) of event(s)

## VII. Case Definition for Case Classification

### A. Narrative description of criteria to determine whether a case should be classified as confirmed.

#### Clinical description

An illness of variable severity caused by the protozoan parasite *Cyclospora cayetanensis*. The most common symptom is watery diarrhea. Other common symptoms include loss of appetite, weight loss, abdominal cramps/bloating, nausea, body aches, and fatigue. Vomiting and low-grade fever also may be noted.

**Laboratory criteria for diagnosis**

Laboratory-confirmed cyclosporiasis shall be defined as the detection of *Cyclospora* organisms or DNA in stool, intestinal fluid/aspirate, or intestinal biopsy specimens.

**Case classification**

*Confirmed*: a case that meets the clinical description and at least one of the criteria for laboratory confirmation as described above.

*Probable*: a case that meets the clinical description and that is epidemiologically linked to a confirmed case.

**B. Classification Tables**

Table VII-B lists the criteria that must be met for a case to be classified as confirmed.

**Table VII-B.** Table of criteria to determine whether a case is classified.

Criterion	Case Definition	
	Confirmed	Probable
<i>Clinical Evidence</i>		
Diarrhea	O	O
Low grade fever	O	O
Anorexia	O	O
Abdominal bloating	O	O
Abdominal cramping	O	O
Weight loss	O	O
Nausea	O	O
Fatigue	O	O
Vomiting	O	O
Myalgia or other body aches	O	O
<i>Laboratory Evidence</i>		
<i>Cyclospora</i> organisms or DNA in stool	O	
<i>Cyclospora</i> organisms or DNA in intestinal fluid/aspirate or intestinal biopsy specimens	O	

<i>Epidemiologic Evidence</i>		
Epidemiologic linkage to a confirmed case of cyclosporiasis		O
Member of a risk group defined by public health authorities during an outbreak		O

Notes:

O = At least one of these “O” (Optional) criteria in each category (i.e., clinical evidence and laboratory evidence) in the same column—in conjunction with all “N” criteria in the same column—is required to classify a case.

### **VIII. Period of Surveillance**

Surveillance should be on-going.

### **IX. Data sharing/release and print criteria**

Notification to CDC of confirmed and probable cases of cyclosporiasis is recommended.

NNDSS cyclosporiasis case counts by State will continue to be published in the *MMWR's* Weekly Report and Annual Summary of Notifiable Diseases. Results of ad-hoc analyses will be made available to the State(s) involved in cluster or outbreak investigations.

Data are published weekly in the *MMWR* Weekly Report, and yearly case counts are given in the *MMWR* Summary of Notifiable Diseases. There are no rules or restrictions on the printing of counts of case data.

Only case count data, as reported in *MMWR*, are released to other agencies or parties. It is the policy of CDC to refer outside agencies or parties to state health departments for more detailed information on cases.

### **X. References**

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